

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

Core Wireless Licensing S.A.R.L.;

Plaintiff,

v.

LG Electronics Inc., and LG Electronics
Mobilecomm U.S.A., Inc.

Defendants.

Case No. 2:14-cv-911-JRG-RSP
(lead case)

Case No. 2:14-cv-912-JRG-RSP
(consolidated)

Jury Trial Demanded

**Core Wireless's opposition to LG's motions for judgment as a matter of law
and new trial as to invalidity**

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I. Introduction.

LG bore the burden of providing invalidity of the asserted claims by clear and convincing evidence. LG did not so much as make a *prima facie* showing of invalidity of either claim on any grounds. Moreover, extensive evidence—including from LG’s own corporate representative—contradicted and refuted LG’s incomplete and conclusory invalidity assertions. Accordingly, there is no basis for judgment as a matter of law as to invalidity.

II. LG did not prove that Claim 21 of the ‘850 patent is invalid.

A. Claim 21 is enabled.

LG acknowledges that its expert, Mr. Lanning, admitted that Claim 21 covers embodiments that are operable, and which the specification enables. Dkt. 616 at 5; Tr. at 867:4-12.¹ And LG does not contend that embodiments using integers that are negative, zero, or “too large” are either operable or that one of ordinary skill would require undue experimentation to determine they are not operable. Nor could LG make such an assertion, as Mr. Lanning testified at trial that one of ordinary skill would know, *without undue experimentation*, “that time cannot move backwards” (and thus that negative integers would render Claim 21 inoperable), Tr. at 866:1-12, Tr. at 811:6-15; that “time cannot stand still” (and thus zero would render Claim 21 inoperable); Tr. at 866:13-15, Tr. at 811:16-18; that using large integers “would not make any sense either” as “the cell phone will never transmit,” Tr. at 811:19-24; and that he had no evidence to offer as to the experimentation that would be required to identify the operable and inoperable embodiments for “large” integers. Tr. at 866:23-867:16. In short, LG cannot dispute that one of ordinary skill would know, without undue experimentation, that Claim 21 would not operate using integers that are negative, zero, or so large as to disrupt or disable transmissions.

¹ Citations to the record refer to the combined record filed as Dkt. 611.

But LG nonetheless contends Claim 21 is invalid because those inoperable embodiments are within the “full scope” of Claim 21 as construed,² and the specification does not teach their use. Dkt. 616 at 3-6. In sum, LG’s legal premise is that a claim is invalid if it encompasses *any* inoperative embodiment. *See* Dkt. 616 at 4 (“the patentee who chooses broad claim language ‘los[es] any claim that cannot be enabled across its full scope of coverage.’”) (citing and quoting *MagSil Corp. v. Hitachi Global Storage Techs., Inc.*, 687 F.3d 1377, 1381 (Fed. Cir. 2012)).

This Court has already rejected LG’s argument as a matter of law. Dkt. 537 at 1. “[T]he relevant enablement question is whether ‘undue experimentation’ is required to identify and practice the **operative** embodiments.” *Id.* (emphasis added) (citing Dkt. 532 at 10). Federal Circuit precedent is in accord. *Crown Operations Int’l, Ltd. v. Solutia Inc.*, 289 F.3d 1367, 1380 (Fed. Cir. 2002) (“inoperative embodiments **do not** necessarily invalidate the claim”) (emphasis added) (citing *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569, 1576–77 (Fed. Cir. 1984) (“Even if some of the claimed combinations were inoperative, the claims are not necessarily invalid. It is not a function of the claims to specifically exclude possible inoperative” embodiments.) (internal quotations and citations omitted)).

Rather, to invalidate a claim based on inoperability, the defendant must prove that the claim as a whole is inoperable or impossible, *e.g.*, that a claim limitation is inoperable or that “**all** disclosed alternative embodiments are inoperative or not enabled.” *EMI Grp. N. Am., Inc. v. Cypress Semiconductor Corp.*, 268 F.3d 1342, 1349 (Fed. Cir. 2001) (emphasis added). Thus “the enablement requirement is met if the description enables **any** mode of making and using the

² For purposes of the record, Core Wireless maintains its objection to Judge Payne’s ruling that an “integer multiple of . . . [TTI]” is not limited to “the product of multiplying the current air interface transmission time interval by an integer greater than one,” and that the scope of Claim 21 includes VTTIs that are negative and zero. *See* Dkt. 558. For purposes of this briefing, however, we demonstrate that LG’s arguments still fail under Judge Payne’s construction, as both Judge Payne and the Court have already held. *See* Dkt. 532 & 537.

invention.” *Johns Hopkins Univ. v. CellPro, Inc.*, 152 F.3d 1342, 1361 (Fed. Cir. 1998) (emphasis added); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1335 (Fed. Cir. 2003); *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991).

The evidence at trial established that the ‘850 patent enables all of the operative modes for Claim 21, and that one of skill would not require any experimentation to recognize and practice operative embodiments, or to rule out integers that are negative, zero, or too large. Tr. at 811:6-24, Tr. at 866:1-867:16. Moreover, LG failed to present any evidence, much less clear and convincing evidence, that one of skill would require “undue” experimentation to identify the which “large” integers are operable and which are not. Presenting such evidence is LG’s burden; it is not Core Wireless’s burden to rebut LG’s conclusory or even non-existent assertions.

Moreover, LG’s reliance on *MagSil* and *AK Steel Corp. v. Sollac*, 344 F.3d 1234 (Fed. Cir. 2003) is misplaced, and neither case stands for the proposition that a patentee must enable *inoperable* or *impossible* embodiments. As *MagSil* explained, the purpose of the enablement requirement is to (1) prevent “inadequate disclose of an invention” and (2) “overbroad claiming that might otherwise attempt to *cover more* than what was actually invented.” 687 F.3d at 1381 (emphasis added). The claim at issue in *MagSil* ran afoul of those purposes because the patentee sought to cover *operable, useful, and desirable* embodiments that were not enabled, thus essentially appropriated the value of others’ future inventive efforts. *Id.* at 1384. Specifically, the claim at issue provided for “a change in the resistance by at least 10%,” but gave no upper bound to the resistance change covered by the claim. *Id.* at 1383. Recognizing that higher resistance changes were better, the patentee asserted that the claim covered a resistance change of more than 100%, or even 1000%, and the district court ultimately found that the claim covered resistance changes up to infinity. *Id.* at 1381. But the patentee provided no enabling disclosures for achieving gains above 11.8%. *Id.* Thus “the specification enabled a marginal advance over

the prior art,” *id.* at 1382, but the patentee claimed all future advances in the art, including the 600% gain achieved by the defendant through many subsequent years of research and development. *Id.* at 1384. Thus *MagSil* was not a case about inoperable embodiments, but rather a case in which a class of *operable* and valuable embodiments was claimed without adequate disclosure. *See* Dkt. 532 at 11 (recognizing this important distinction in distinguishing *LizardTech v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1346 (Fed. Cir. 2005)). *MagSil*’s emphasis on enabling the “full scope” of the invention must thus be understood in the context of that decision, *i.e.*, that a specification must enable the full *useful* and *operable* scope of the claim.

AK Steel is inapposite for the same reasons. There, the specification in question explicitly taught away from the use of a “Type 1” aluminum coating (having around 10% silicon by weight) and instead taught that the invention was the use of a “Type 2” aluminum (0.5% silicon). 344 F.3d at 1236-37, 1244-45. Indeed, the specification stated that the inventors did not know how to effectively use Type 1 aluminum coatings in the context of the invention, and discouraged any further experimentation as to the issue. *Id.* at 1244. Yet the patentee nonetheless deliberately sought and obtained claims covering Type 1 coatings. *Id.* at 1237, 1241-43. And the patentee then asserted those claims against the defendant based on accused products containing 8% to 8.5% silicon by weight, *i.e.*, Type 1 coatings. *Id.* at 1237. On that record, the Federal Circuit found the claims invalid for lack of enablement. Thus as in *MagSil*, *AK Steel* involved claims covering operable and valuable embodiments that the inventors did not know how to achieve at the time of the invention, and did not teach in the specification, and yet subsequently claimed to be their own.

Here, by contrast, LG asserts that Claim 21 is invalid because the specification does not teach how to use indisputably *useless* and inoperable embodiments that an ordinary artisan would know not to use: VTTIs that are negative, zero, or so large as to disable communications.

Unlike in *MagSil* and *AK Steel*, the enablement requirement does not apply here as there is no concern that Claim 21 covers useful and valuable embodiments that the inventors did not teach.

B. Claim 21 is supported by adequate written description.

LG next asserts that Claim 21 is invalid for lack of written description “[f]or similar reasons” as those it argued with respect to enablement. Dkt. 616 at 6-8. LG’s written description argument fails for the same reasons set forth above. As Judge Payne recognized, unlike in *LizardTech* and other cases LG cites, this is not a case “in which the inventor described only a particular species of embodiments but claimed a broad genus.” Dkt. 532 at 13. LG cites to no authority for the proposition that a specification must provide written description for *inoperable* and useless embodiments that may come within the scope of the patent’s claims. *See id.* at 13-14. Rather, as LG’s own quotation to *Nautilus v. Biosig* shows, the purpose of the written description requirement is to “appris[e] the public *of what is still open to them* in a manner that avoids a zone of uncertainty *which enterprise and experimentation may enter only at the risk of infringement claims.*” 134 S.Ct. at 2128-29 (emphasis added). *Nautilus*, 134 S.Ct. 2120, 2128-29 (2014) (emphasis added); Dkt. 616 at 7 (partially quoting same).

Here, there is no reason to invalidate Claim 21 for lack of written description as to inoperable scope that ordinary artisans would recognize to be inoperable and would have no reason to further pursue. There is no dispute that ordinary artisans would neither undertake experimentation nor enterprise to create an apparatus with a processor adapted “to cause the transmitter to transmit a next data packet after a predetermined period associated with” negative time, time standstill, or endless time “has elapsed.” *See* ‘850 Patent Claim 21. Rather, the relevant and indisputable fact is that ordinarily skilled artisans would know, without the need for further written description, that such embodiments are inoperable, and would also know that the inventors possessed the operable scope of Claim 21. Tr. at 866:1-867:17.

C. LG did not present any evidence of a single reference that anticipates Claim 21.

LG argues that Claim 21 is anticipated by “the prior art.” Dkt. 616 at 8. Yet as LG’s own briefing states, anticipation can only be found “if a *single* prior art reference discloses each and every limitation of the claimed invention.” *Id.* at 8-9 (quoting and citing *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003)) (emphasis added). At trial, LG did not present any evidence of any single prior art reference that purportedly discloses each and every limitation of Claim 21. Rather, LG sought to argue anticipation based on “the admitted prior art,” *i.e.*, all or any of the multiple references discussed in the summary of the invention section of the ‘850 patent. Tr. at 879:6-25. Even if the Court had not struck Mr. Lanning’s “admitted prior art” testimony, such testimony could not prove anticipation as a matter of law because the “admitted prior art” is not a single reference, and “the prior art” cannot anticipate.

Likewise, Mr. Sebire did not testify as to any single prior art reference that would disclose each and every limitation of Claim 21. Rather, as Dr. Jackson made clear, none of the specific prior art references that LG had put forth would anticipate Claim 21 even where $n = 1$. Tr. at 994:10-21. Notably, LG did not show by clear and convincing evidence that *any* prior art reference taught the “check to determine” and “for the case where it is determined that the apparatus is not transmitting” limitations of Claim 21. Tr. at 819:19-20 (Mr. Lanning testifying that “the Samsung document is missing a check-to-determine step”); Tr. at 822:19-823:7 (Mr. Lanning testifying as to the same and that Willars does not anticipate); Tr. at Tr. at 996:1-6, 20-23 (Dr. Jackson explaining that Willars and Kayama do not “check to determine”). Accordingly, LG did not put forth *any* evidence from which a jury could conclude that Claim 21 is anticipated.

Nor does the Court’s decision to strike Mr. Lanning’s “admitted prior art” testimony warrant a new trial. As an initial matter, there was no error in the Court’s ruling on that issue, as the Court found that Mr. Lanning’s “admitted prior art” opinion violated the Court’s disclosure

requirement “that invalidity references must be specific and fairly put the Plaintiff on notice as to what it must defend against regarding the Defendants’ [sic] invalidity case.” Tr. at 879:6-11, Tr. at 880:13-25, Tr. at 883:3-9, Tr. at 885:3-9. And while the Court ruled that reliance on “admitted prior art” was an improper basis for arguing *either* “anticipation or obviousness,” Tr. at 880:17-25, Mr. Lanning’s clear testimony was that he was *only* relying on the admitted prior art as a basis for arguing anticipation, not obviousness. Tr. at 824:15-22. LG’s post-trial motion confirms the same. Dkt. 616 at 9. Mr. Lanning’s “admitted prior art” theory could not, as a matter of law, establish anticipation because it was not based on a single reference. The cases LG cites either relate to obviousness, or else anticipation based on a *single* prior art reference discussed in the patent itself, neither of which is relevant to the issue here. *See* Dkt. 616 at 11. Moreover, LG’s argument that the ‘850 patent itself was the “single reference” necessary to support a finding of anticipation is meritless. Anticipation must be proven by a “single *prior* art” reference. The ‘850 patent is not “prior” to itself and thus cannot anticipate itself. Thus, the decision to exclude that testimony could not affect the outcome, and cannot warrant a new trial under Fed. R. Civ. P. 61.

D. LG did not prove that Claim 21 is obvious over Samsung and Willars.

LG’s post-trial briefing abandons its obviousness theory based on Kayama, and thus waives the argument. Rather, LG focuses on the combination of Samsung and Willars. Yet the trial record demonstrates that LG failed to make even a *prima facie* showing of obviousness as to that combination. Mr. Lanning admitted that Samsung does not teach the “check to determine” step. Tr. at 819:19-20 (Mr. Lanning testifying that “the Samsung document is missing a check-to-determine step”); *id.* at 822:19-823:1. And while Mr. Lanning stated in conclusory fashion that the check-to-determine limitation is “disclosed by Willars,” Tr. at 819:19-23, he provided *no analysis* as to how Willars purportedly teaches that limitation. Rather, Mr. Lanning simply stated that Willars “describes how the mobile phone . . . can go to sleep at times when it doesn’t need to

receive information or send information,” Tr. at 818:7-22, but gave no testimony as to how any aspect of Willars *first* “checks to determine whether the apparatus is transmitting data packets in a current air interface transmission time interval” and *second* imposes a VTTI “*for the case where it is determined that the apparatus is **not** transmitting.*” See ‘850 patent Claim 21.

Accordingly, there was no evidence from which a jury could conclude that the combination of Samsung and Willars teaches each element of Claim 21. Moreover, Mr. Lanning further failed to give any testimony as to *why* one of ordinary skill would have been motivated to combine Samsung and Willars with an expectation of success, other than for purposes of a hindsight-based invalidity theory. Mr. Lanning’s only testimony on this issue was that both patents “relate to the same type of cellular network,” and were invented by large cellular equipment companies. Tr. at 818:23-819:10. But Mr. Lanning did not testify as to *why* one of skill would be motivated to combine these references in the manner he had described, aside from the artisan’s mere knowledge that those references existed. Indeed, Mr. Lanning stated that the entire driving force behind his obviousness combination was a hindsight theory directed to reverse engineering the invention of Claim 21. Tr. at 819:11-23 (“obviousness . . . means that if one document doesn’t describe every limitation of the claim, then you can combine it with another document that fills in some of those holes or fills in the holes.”). As the Federal Circuit recently reiterated, obviousness cannot be found absent evidence of “a *reason why* a PHOSITA would combine the prior art references.” *In re Nuvasive*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (emphasis original). Mr. Lanning failed to provide any reason why a PHOSITA would be motivated to modify Samsung to add the “check to determine” and “for the case where it is determined the apparatus is not transmitting” steps, and LG thus failed to make a predicate showing of obviousness.

In any case, Mr. Lanning’s testimony was belied by the testimony of LG’s corporate representative, Mr. Yi (a deeply experienced engineer in the field of art), who testified that,

during his deposition, he admitted that the ‘850 patent is valid. Tr. at 639:5-7. Mr. Lanning’s testimony was also refuted by Dr. Jackson, who put forth evidence from which a jury could conclude that LG had not shown, by clear and convincing evidence, that the combination of Samsung and Willars invalidates Claim 21. Tr. at 995:20-996:6, Tr. at 1005:21-1007:7.

E. LG cannot obtain judgment as a matter of law under Section 101.

Pre-trial, the Court denied LG’s summary judgment motion based on §101 in a thorough and well-reasoned opinion. Dkt. 532 at 14-17. The Court’s decision was correct, and LG gives no arguments to the contrary. Moreover, the *ContentGuard* decision that LG cites makes clear that a defendant’s attempt to raise Section 101 as a basis for judgment as a matter of law under Rule 50 is “nonsensical” where, as here, “neither party was heard during trial, let alone fully heard, on the issue of the patent-eligibility of the patents-in-suit.” *Contentguard Holdings, Inc. v. Apple Inc.*, No. 2:13-CV-1112-JRG, 2016 WL 1637280, at *6 (E.D. Tex. Apr. 25, 2016)

Accordingly, there is no basis for judgment as a matter of law based on Section 101.

III. LG did not prove that Claim 19 of the ‘536 patent is invalid.

A. Dr. Fuja admitted that IS-54 does not anticipate or render Claim 19 obvious.

At trial, LG’s expert, Dr. Fuja, admitted that he had given no testimony that IS-54 discloses the “pre-determined threshold” limitation of Claim 19. Tr. at 750:16-18, 756:4-6. Accordingly, there was no evidence from which a jury could find that IS-54 anticipates. Moreover, Dr. Fuja provided no testimony as to how or why Claim 19 would have been obvious over IS-54 alone, given at least the missing predetermined threshold element. Rather, Dr. Fuja made a purely conclusory assertion, Tr. at 703:23-704:2, which does not suffice. *NTP, Inc. v. Research In Motion, Ltd.*, 392 F.3d 1336, 1371 (Fed. Cir. 2004) (“conclusory evidence is hardly enough to meet [Defendant’s] burden . . . with respect to anticipation and obviousness.”).

B. Dr. Fuja failed to prove obviousness by IS-54 and Brolin or Davis.

On cross-examination, Dr. Fuja admitted that he did not walk the jury through a detailed element by element obviousness analysis for the combination of IS-54 and Brolin or Davis. Tr. at 745:23-746:11. There was thus no clear and convincing evidence of obviousness.

LG contends that Brolin's unique signature or Davis's speech/data modes may be combined with IS-54 to render Claim 19 an obvious solution to the problem of "transmitting different types of data over the same line." Dkt. 616 at 16-17. But Claim 19 presents a two-step solution to the problem of *detecting* messages at the receiver, Tr. at 664:17-20, that requires an analysis as to whether received information bits deviate by at most a "predetermined threshold" from pre-defined "unique bit patterns." Tr. at 211:13-212:10; 714:21-715:1, 715:24-716:3. Dr. Fuja's cited testimony omits any mention of a "predetermined threshold value" or a comparison to a unique bit pattern corresponding to a message. Accordingly, LG did not establish obviousness as to either element 19(c) or (d). Tr. at 685-686, 699:8-21.

As to IS-54, Dr. Fuja admitted that his opinions based on IS-54 depended on applying a different meaning to "message" than the meaning IS-54 had assigned to that term, and that he had no analysis and no opinion as to whether IS-54 would meet the elements of Claim 19 based on the meaning of "message" used by IS-54 itself. Tr. at 748:9-17. The distinction is crucial. Dr. Fuja admitted the "message" he identifies in IS-54 is a 260-bit pattern. Tr. at 750:8-11. He also admitted that IS-54 defines the message *bit patterns* as distinct 48-bit patterns. Tr. at 747:13-748:8. Dr. Fuja further admitted that the convolutional encoder disclosed in IS-54 is non-systematic, Tr. at 749:2-16, meaning that the IS-54 48-bit message *bit pattern* is not contained within the encoded 260 bits that he referred to as the IS-54 "message." Tr. at 750:5-15. Since the 48-bit message *bit pattern* in IS-54 is not part of the 260-bit "message" and is not contained within the "frame," IS-54 cannot meet the limitation of "identifying a bad frame which additionally *contains* a bit pattern which deviates from a bit pattern *corresponding to a message*

at most by a predetermined threshold.” ‘536 patent Claim 19. And as with anticipation, Dr. Fuja did not opine as to the “predetermined threshold” limitation at all. Tr. at 757:4-6. LG thus failed to present clear and convincing evidence of obviousness.

By contrast, Dr. Wesel testified in detail that Brolin teaches a fundamentally different technique than Claim 19, Tr. at 274:6-275:10, and that the unique signature in the Brolin patent is different from the ‘536 patent, Tr. at 281:19-25, which testimony the jury was free to accept. In addition, LG’s corporate representative, Mr. Yi, acknowledged that during his deposition, he admitted that the ‘536 patent is valid. Tr. at 639:5-7. And the inventor of the ‘536 patent, Mr. Suvanen, testified that Nokia gave him a very significant bonus for the patent—the single highest such bonus he received for any of his patents—which he understood as a recognition of the importance of his invention and the degree to which it was used. Tr. at 170:4-171:11. In accordance with the Court’s jury instructions, the jury could have credited that evidence as demonstrating secondary indicia of non-obviousness, *e.g.*, commercial success of the invention and praise from others in the field.

Accordingly, there is no basis for finding Claim 19 invalid as a matter of law.

IV. Conclusion.

For the reasons set forth above, LG’s motion should be denied.

Dated: January 4, 2017

Respectfully submitted,

By: /s/ Kayvan B. Noroozi
Kayvan B. Noroozi
CA State Bar No. 271167
(Admitted to practice in the Eastern
District of Texas)
kayvan@noroozi.la
NOROOZI PC
1299 Ocean Ave., Suite 450

Santa Monica, CA 90401
(310) 975-7074

Marc A. Fenster (CA SBN 181067)
Benjamin T. Wang (CA SBN
228712)
Reza Mirzaie (CA SBN 246953)
Brian D. Ledahl (CA SBN 186579)
C. Jay Chung (CA SBN 252794)
Adam S. Hoffman (CA SBN
218740)
Neil A. Rubin (CA SBN 250761)
RUSS, AUGUST & KABAT
12424 Wilshire Boulevard, 12th
Floor
Los Angeles, California 90025
Telephone: (310) 826-7474
Facsimile: (310) 826-6991
Email: mfenster@raklaw.com
Email: bwang@raklaw.com
Email: bledahl@raklaw.com
Email: rmirzaie@raklaw.com
Email: jchung@raklaw.com
Email: ahoffman@raklaw.com
Email: nrubin@raklaw.com

S. Calvin Capshaw
State Bar No. 03783900
Elizabeth DeRieux
State Bar No. 05770585
D. Jeffrey Rambin
State Bar No. 00791478
CAPSHAW DERIEUX LLP
114 E. Commerce Ave.
Gladewater, Texas 75647
Mailing Address:
P.O. Box 3999
Longview, Texas 75606-3999
Tel. 903/236-9800
Fax 903/236-8787
Email: ccapshaw@capshawlaw.com
Email: ederieux@capshawlaw.com
Email: jrambin@capshawlaw.com

**Attorneys for Plaintiff Core
Wireless Licensing S.A.R.L.**

CERTIFICATE OF SERVICE

I certify that a true and correct copy of this document is being served via the Court's CM/ECF system per Local Rule CV-5(a)(3) on counsel of record for defendants on the above listed date.

/s/ Kayvan Noroozi